0.05 in a preferred embodiment, 0.01 in a more preferred embodiment, and 0.001 in a most preferred embodiment.

In the Claims:

1. (Amended) A plant expression cassette, which comprises a 5' cauliflower mosaic virus 35S promoter operably linked to a nucleic acid encoding a glutamine synthetase protein and a 3' NOS terminator sequence, wherein expression of said cassette in a plant increases nitrogen metabolism in said plant.

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2. (Amended) The expression cassette of claim 1, wherein the glutamine synthetase coding sequence is from gymnosperm *Pinus sylyvestris* having Genbank Accession No. X69822.

7. (Amended) The expression cassette of claim 1, wherein said glutamate synthetase sequence <u>is</u> selected from the group consisting of:

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A.) a nucleic acid sequence that is at least 70% identical to Genbank Accession No. X69822 and encodes a protein having enzymatic function;

B.) a nucleic acid sequence that encodes a protein that is at least 70% similar to Genbank Accession No. X69822 and encodes a protein having enzymatic function;

C.) a nucleic acid sequence that hybridizes to Genbank Accession No. X69822 at moderate stringency with hybridization in 6X SSC, 5X Denhardt's solution, 0.5% SDS and 100 µg/ml denatured salmon sperm DNA at 42°C, and washed in 2X SSC and 0.5% SDS at 55°C for 15 minutes and encodes a protein having enzymatic function; and

D.) a nucleic acid sequence that is Genbank Accession No. X69822.

8. (Amended) A vector comprising the expression cassette

of claim 2.

9. (Amended) The vector of claim 8 which is an *Agrobacterium* binary vector.

12. (Amended) A method of producing a transformed Poplar plant by transforming *in vitro* said plant with the expression cassette of claim 2.

16. (Amended) The method of claim 12, wherein the plant is the hybrid *Populus tremula X P. alba*.

18. The method of claim 12, wherein the said plant is transformed by infection with an *Agrobacterium tumefaciens vector* comprising a nucleic acid encoding glutamate synthetase.

20. A transgenic plant produced by the method of claim 18.

21. An isolated reproductive unit from the transgenic plant of claim 20, said unit comprising a nucleic acid encoding heterologous glutamine synthetase.

22. A cell from the transgenic plant of claim 20, wherein said cell comprises a nucleic acid encoding heterologous glutamine synthetase.

29. The transgenic plant of claim 20, which is a hybrid of *Populus tremula* X *Populus alba*.

Please cancel claims 3-6, 13, 14, 15, 19, 23-28 and 31-40.

A marked-up copy of the amendments presented herein is provided in Appendix A.